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VEGETABLE PROCESSING

in the

MEDICINE HAT AREA

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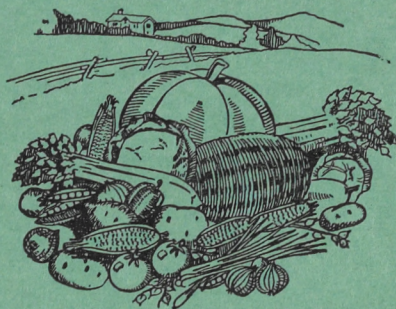
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EDMONTON, ALBERTA

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MEDICINE HAT CHAMBER OF COMMERCE

Vegetable Processing Possibilities in the Medicine Hat Area

1. Effect of Irrigation:

Medicine Hat marks the Eastern terminus of two important irrigation projects now under development on a joint basis by the Federal Government and the Province of Alberta, Viz: The St. Mary-Milk River Development and the Bow River project. The latter draws its water from the Bow River at Carceland, and its works have already reached Ronolane, a point on the Bow, approximately 35 miles North West of the City. When finally completed, the Eastern extension will bring water to the confines of Medicine Hat and Redcliff, and will place approximately 60,000 acres under the ditch.

The St. Mary-Milk River Development completed its proposed low line canal and laterals two years ago, bringing water from the St. Mary's Dam, South West of Lethbridge to the Western extremities of Medicine Hat. In the area extending from the City along Highway No. 3 to Seven Persons, 17 miles West, there are now approximately 30,000 acres of irrigable land, a considerable portion of which will gradually become available for the production of row crops. Several specialty growers have already moved in, and others are being encouraged to participate in the benefits of irrigation farming in an area ideally situated for intensive production.

The main limiting factor to the extension of row crop production is the lack of pre-cooling, packaging and quick freeze facilities. A few years ago, truck farms, pumping irrigation water along the flats of the South Saskatchewan River, had developed approximately 1,500 acres, and produced corn, onions and other vegetables of excellent quality, but lack of handling facilities, and competition from outside sources, particularly the U.S.A. gradually reduced this acreage to a negligible figure. The advent of irrigation however, and the influx of specialty growers is now evidenced by increasing interest in row crops as indicated by the following figures covering local 1956 production. The yields in each case have been conservatively estimated.

| Acreage | Crop | Yield per acre |
|-------------------|-------------|----------------|
| 277 $\frac{3}{4}$ | Potatoes | 10 tons |
| 122 $\frac{1}{4}$ | Corn | 3 |
| 45 $\frac{3}{4}$ | Onions | 10 |
| 10 $\frac{1}{2}$ | Peppers | 7 |
| 5 $\frac{3}{4}$ | Carrots | |
| 6 $\frac{1}{4}$ | Cabbage | 10-12 |
| 6 | Tomatoes | 4-5 |
| 1 | Cauliflower | 4 |
| $\frac{1}{4}$ | Canteloup | |
| 25 | Field Peas | 2 |
| 16 $\frac{3}{4}$ | Cucumbers | 15 |
| $\frac{1}{2}$ | Beans | |
| $\frac{1}{2}$ | Peas | |
| 1 | Parsnips | |
| 9 | Turnips | 12 |
| $\frac{3}{4}$ | Lettuce | 6 |
| <hr/> | | |
| 530 acres. | | |

2. Advantages of the Medicine Hat Area — Agricultural:

Irrigation farming practices have been carried on with much success in several Alberta districts over a period of many years, particularly in the Lethbridge area. The comparative references given below are produced merely for the purpose of substantiating our claim that our sandy loam, warm sunny climate and extended frost-free days are eminently suitable for the production of irrigated crops.

The area covered by the Eastern end of the St. Mary-Milk River development has the following advantages over the Lethbridge area: (1) Lower Altitude, (2) Less Wind, (3) Higher Temperatures, (4) Longer growing season, (5) Somewhat lighter soil type.

The following table gives the **mean monthly temperatures** during the growing season:

| Station | April | May | June | July | Aug. | Sept. | Oct. |
|--------------|-------|-----|------|------|------|-------|------|
| Brooks | 42 | 52 | 61 | 66 | 64 | 53 | 43 |
| Lethbridge | 43 | 51 | 59 | 65 | 63 | 54 | 45 |
| Medicine Hat | 45 | 55 | 63 | 69 | 67 | 56 | 46 |

The number of days in the Vegetative period and the medium frost-free period are as follows:

| Station | Vegetative Season - Days | Frost Free Period Days |
|--------------|--------------------------|------------------------|
| Brooks | 187 | 118 |
| Lethbridge | 189 | 114 |
| Medicine Hat | 196 | 125 |

A further interesting comparative feature is that of "Day-Degrees" - a value related to the number of days during the year when the temperature rises above 42 F., thus inducing growth of common crop plants:

| | |
|--------------|------|
| Brooks | 2655 |
| Lethbridge | 2590 |
| Medicine Hat | 3342 |

3. Advantages of Medicine Hat — Industrial:

Medicine Hat is situated on the main line of the Canadian Pacific Railway and is also the junction of that line with the Crows Nest Pass route to Vancouver. It is also served by the Trans-Canada Highway and by Highway No. 3 West to the B.C. border.

The City and neighboring Redcliff comprises the most highly industrialized area for it's size in Western Canada, containing 3 large flour mills, 2 pottery plants, clay product works, 4 brick and Tile plants; a large glass works and many other plants of smaller capacity.

The latest addition to local industries, and one that is of particular interest to Agriculture, is the Twenty-two Million Dollar plant of Northwest Nitro-Chemicals Ltd., which commenced operations here in November 1956. This company is engaged in the manufacture of Ammonium Phosphate and Ammonium Nitrate fertilizer, and anticipates an annual output of 140,000 tons for sale throughout the four Western Provinces of Canada and all the Northwestern States. It's products will be of inestimable benefit to all agriculturists but especially to those engaged in the intensive cultivation of irrigated areas, where every means of increasing production will be sought out and followed.

Ample supplies of Natural Gas, Electric Power and Water are available at very reasonable rates from the Municipally owner utilities. In addition, an ample labour force, a good record in labour relations, excellent housing, first class education facilities, and ample means for recreation, all add to the City's advantages as a good industrial location. Industrial sites on trackage are also presently available.

4. Market Potential:

The market area for the produce of the irrigated farm embraces the whole of Western Canada, the Three Prairie Provinces and British Columbia.

Medicine Hat is ideally situated to supply increasing quantities of pre-cooled vegetable products to the following Western Centres, as shown by this table:

| City | Pop. | Railway Miles | Road Miles |
|---------------------|---------|---------------|------------|
| Calgary Alberta | 189,200 | 176 | 180 |
| Edmonton, Alberta | 230,000 | 370 | 360 |
| Lethbridge, Alberta | 30,000 | 112 | 110 |
| Saskatoon, Sask. | 58,268 | 436 | 338 |
| Regina, Sask. | 71,319 | 300 | 325 |
| Winnipeg, Manitoba | 235,710 | 656 | 650 |
| Vancouver, B. C. | 344,833 | 818 | 913 |
| | | | via U.S.A. |

Produce unloads at the larger centres from Winnipeg to Vancouver amounted in 1955 to approximately 16,500 cars of which Alberta supplied only 1,000 cars, or a little better than 6% of the total.

A survey closer to home covering produce unloads in 1955 at the cities of Calgary and Edmonton, Alberta discloses the following:

| Produce | Carlot Totals | Origin of Carloads U.S.A. Other Prov. | | Alberta | Alberta Exports |
|----------------------|------------------|--|-----|---------|--------------------|
| Potatoes | 1016 | 413 | 76 | 527 | 174 |
| Lettuce | 461 | 451 | 10 | | |
| Tomatoes | 460 | 387 | 73 | | |
| Onions | 301 | 230 | 70 | 1 | |
| Celery | 227 | 222 | 5 | | |
| Cabbage | 216 | 143 | 34 | 39 | 2 |
| Mixed Vegetables | 209 | 146 | 22 | 41 | |
| Carrots | 165 | 123 | 22 | 20 | |
| Cauliflower | 116 | 103 | 13 | | |
| Cucumber | 80 | 24 | 31 | 25 | |
| Strawberries | 80 | 56 | 24 | | |
| Turnips | 60 | 2 | 10 | 48 | 76 |
| Mixed Fruit and Veg. | 50 | 34 | 16 | | |
| Corn | 32 | 17 | | 15 | |
| Crabapples | 16 | | 16 | | |
| Brussel Sprouts | 15 | 15 | | | |
| Raspberries | 10 | | 10 | | |
| Parsnips | 7 | 3 | | 4 | |
| Rhubarb | 5 | | 5 | | |
| Peppers | 4 | | 4 | | |
| Asparagus | 2 | 2 | | | |
| Pumpkins | 1 | | | | |
| Squash | 1 | | | 1 | |
| Shallots | 1 | | | 1 | |
| Totals | 3,535 | 2,371 | 441 | 723 | 261 |

The above totals represent approximately 80% of the total Alberta consumption for the year indicated, and it will be noted that the carlots mentioned, no less than 67% originated in the U.S.A. This is a graphic illustration of the impact of

properly processed and packaged fruits and vegetables on the Alberta market, and by the same token, is an indication of the tremendous possibilities that exist for securing a larger slice for the Alberta grower, when once he is furnished with the proper facilities.

5. Transportation and Rates:

As Medicine Hat is served by both the main line of the Canadian Pacific Railway and also by the Trans-Canada Highway some indication of transportation costs in the Western market area will be of interest.

Railway Rates

The following are quoted rates from Medicine Hat to the points mentioned:

| Destination | Vegetables with tops | Fresh or Green, without tops | Fresh Frozen |
|------------------|-------------------------|---------------------------------|--------------|
| Edmonton, Alta. | .70 per cwt | .69 per cwt | 1.25 per cwt |
| Calgary, Alta. | .50 | .48 | .89 |
| Saskatoon, Sask. | .82 | .80 | 1.47 |
| Regina, Sask. | .63 | .60 | 1.09 |
| Winnipeg, Man. | 1.09 | 1.03 | 1.89 |
| Vancouver, B.C. | .90 | .90 | 2.20 |

Truck Rates:

Truck lines operate out of Medicine Hat over black-topped roads. Elapsed time has been added to the following tables:

These loads are based on a 20,000 lb. minimum.

| Destination | Rates | Elapsed time |
|------------------|--------------|--------------------|
| Edmonton, Alta. | 1.58 per cwt | 10 hours overnight |
| Calgary, Alta. | .79 | 10 hours overnight |
| Saskatoon, Sask. | 1.53 | 9 hours overnight |
| Regina, Sask. | 1.13 | 9 hours |
| Winnipeg, Man. | 1.97 | 24 hours delivery |
| Vancouver, B.C. | 2.29 | 36 hours |

In addition to the above truck rates, there is a charge of 10% for refrigeration, except to Vancouver where the charge is 10% per CWT.

Elapsed running time for trucks from Medicine Hat to Edmonton, Calgary, Saskatoon and Regina is 9 - 10 hours; in other words they provide overnight delivery.


6. What We Need:

From the short summary provided herein, it will be seen that the Alberta grower, at least in this area, is subject to the keenest competition from the U.S. supplier whose fresh produce, skillfully pre-cooled and expertly packaged, enjoys premium prices on the consumer market.

A pre-cooling plant is a prime necessity for Medicine Hat, coupled with adequate packaging of the products of our rapidly growing irrigation farms. It goes without saying that a food processing plant, quick freeze and canning facilities are all tied in with this concept, and are essential to the orderly growth of our irrigation economy.

It should be mentioned that every possible assistance will be extended by the City authorities and by the Medicine Hat Chamber of Commerce to prospective builders of any or all of the above plants in this City.

THE MEDICINE HAT CHAMBER OF COMMERCE
MEDICINE HAT, ALBERTA, CANADA

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